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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Shigemasa Takagi

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EXAMINER

LIU, HENRY Y

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/569,848	Applicant(s) TAKAGI ET AL.	
	Examiner HENRY LIU	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/2/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 13-20 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 14, 20, 23, 24 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-10,13-20 and 23-26 are pending. Claims 1-10, 14, 20, 23, 24, and 26 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/6/2009.

A rejection to Claims 13 and 15-19 is set forth below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 15 recites the limitation "the pillar" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over SAKAKIBARA (4,655,735) in view of DITTRICH (3,016,755).

Regarding Claim 13, SAKAKIBARA teaches "a push block (Bb) (Fig. 26) for use with a metallic belt (1) wound between annular V-grooves (6) of a drive pulley and a driven pulley (Col. 3 lines 33-69)." A V-belt continuously variable transmission inherently has a driven pulley and driving pulley.

SAKAKIBARA teaches "a plurality of the push blocks (Bb) are for being superimposed with one another along the longitudinal direction of the metallic belt (1), the push block (Bb) comprising: a front surface and a rear surface; a side contact surface (21a) (21b) opposing inner side surfaces of the annular V-grooves of both pulleys (6), the side contact surface extending between the front and rear contact surfaces the side contact surface having an associated lengthwise direction and an associated widthwise direction is generally parallel to a travel direction of the push block."

SAKAKIBARA does not teach "and a front half of the contact surface forms an obtuse angle with a front surface of the push block (Bb), and a rear half of the contact surface forms an obtuse angle with a rear surface of the push block, and a ridge line comprising a line formed by an intersection of said front half and said rear half, said ridge line functioning as an oil film breaking portion for breaking an oil film, which forms on the inner side surfaces of the annular V-grooves of the pulleys (Fig. 26), and

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extending along the entire length of the contact surface in substantially the lengthwise direction and at a middle part of the contact surface in the widthwise direction.”

DITTRICH teaches a front half of the contact surface (Fig. 5) forms an obtuse angle with a front surface of the push block (8, 9), and a rear half of the contact surface (Fig. 5) forms an obtuse angle with a rear surface (15) of the push block, and a ridge line (X) comprising a line formed by an intersection of said front half and said rear half, said ridge line functioning as an oil film breaking portion for breaking an oil film, which forms on the inner side surfaces of the annular V-grooves of the pulleys, and extending along the entire length of the contact surface in substantially the lengthwise direction and at a middle part of the contact surface in the widthwise direction.”

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the push block in SAKAKIBARA with the contact surface of DITTRICH for improved grip between the push blocks and the pulleys.

SAKAKIBARA does not teach “a push block is formed by bending a single wire material and then performing pressing.” Even though the product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. Bending or another method would result in the same structure of the product MPEP 2113.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **15-19** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over SAKAKIBARA2 (4,545,779).

Regarding Claim 15, SAKAKIBARA2 teaches “a push block (1) for use with a metallic belt wound between annular V-grooves of a drive pulley and a driven pulley, wherein a plurality of the push blocks are for being superimposed with one another along the longitudinal direction of the metallic belt (see Fig. 1), the push block (1) comprising: a front surface and a rear surface; a side contact surface (2) opposing inner side surfaces of the annular V-grooves of both pulleys, the side contact surface extending between the front and rear contact surfaces, the side contact surface having an associated lengthwise direction and an associated widthwise direction that is transverse to the lengthwise direction, whereby the widthwise direction is generally parallel to a travel direction of the push block (Fig. 3).”

SAKAKIBARA2 teaches “a front portion of the contact surface forming an obtuse angle with a front surface of the push block (1), and a groove (3) extending along the entire length of the contact surface at the middle of the contact surface (2), wherein an inner wall of the groove and the contact surface defines the ridge line that functions as the oil film breaking portion, which forms on the inner side surfaces of the annular V-grooves of the pulleys (see Fig. 3),

SAKAKIBARA2 does not teach “a push block is formed by bending a single wire material and then performing pressing.” Even though the product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. Bending or another method would result in the same structure of the product or an obvious difference, see MPEP 2113.

As per claims 16 and 17, SAKAKIBARA2 teaches the groove (3) has a rectangular cross section (see Fig. 3) and a triangular cross section (see Fig. 3).” The triangular cross-section is the outer edge portion of the groove which contact the pulley surfaces.

As per claim 18, SAKAKIBARA2 teaches “the side contact surface of the body of the push block in frictional contact with the inner side surfaces of the annular V-grooves of both of the pulleys and the side contact surface of the pillar continuous with the body side contact surface includes a plurality of grooves extending parallel to the travel direction of the push block, with the width of the groove at the front side in the travel direction being wider than the width at the rear side in the travel direction (Fig. 3).”

As per claim 19, SAKAKIBARA2 teaches a metallic belt comprising a metal band (100) and the push block (1).

Response to Arguments

Applicant's arguments with respect to claims 13 and 15-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY LIU whose telephone number is (571) 270-7018. The examiner can normally be reached on Mon-Thurs 7:30am - 5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL MANSEN can be reached on (571)272-6608. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael R Mansen/
Supervisory Patent Examiner, Art Unit 3654

/H. L./
Examiner, Art Unit 3654